

AIR SOURCE HEAT PUMPS (ASHP)

ASHPs are a high-efficiency heating and colling system that can lower energy costs. As the technology has advanced in recent years, variable-speed heat pumps have emerged as an even higher efficiency option for heating and cooling residences in cold climates. An air source heat pump can result in an **annual savings of** \$459 compared to electric resistance heaters and \$948 compared to oil systems, plus rebates and tax credits. In Minnesota, this is an opportunity to replace propane heat systems that are costly.

Home comfort year-round

Delivering cooling in the warm months and heating in the cold months, ASHPs provide dependable comfort throughout the year. Recent advancements in the technology have enabled heat pumps to operate efficiently in colder regions, making them a cost-effective and reliable heating option for homes in the Midwest.¹

Greener, cleaner

ASHPs significantly reduce the carbon emissions from propane or electric resistance heating. They are electric, so also have the potential to use electric energy generated from carbon-free options like wind and solar. A home's existing electric system converted to an ASHP can deliver one-and-a-half to three times more heat energy than the electricity it consumes, effectively reducing greenhouse gas emissions.¹



To find contractor resources, training, rebates and programs visit: **mnashp.org/contractor**

To find homeowner resources visit: mnashp.org/for-homeowners

To find Xcel Energy or MiEnergy Rebates or discounted rates call: **800-895-4999**

Contact Jason Ludwigsen for more information on resources at: jdludwigson@gmail.com

¹ energy.gov/energysaver/heat-and-cool/heat-pump-systems/air-source-heat-pumps







ELECTRIC WATER HEATERS

Tankless (On-Demand) Water Heater

Tankless (On-Demand) Water Heaters use heating coils to heat the water as you need it. They're more energy-efficient than a storage tank and provide only a limited flow of hot water per minute. These are good options for homes that have one hot water use at a time.

Heat Pump (Hybrid) Water Heat

Heat Pump (Hybrid) Water Heaters use heat from the air and transfer it to the water. They use about 60% less energy than standard electric water heaters. And while they cost more than electric-only models, installation is similar and payback time is short. A hybrid water heater needs as much as 7 feet of clearance from floor to ceiling. You'll also need up to 1,000 cubic feet of uncooled space to capture enough heat from the air as well as a nearby drain to discharge the condensate. **These units double as de-humidifiers and keep basements dry without the extra appliance**.

Why you should install

- Healthier homes with reduced greenhouse gas emissions1
- Low operational cost
- Efficient use of energy
- Safe to operate and repair



To find Xcel Energy or MiEnergy Rebates, visit: xcelenergy.com/HomeRebates or visit MiEnergy.coop

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¹ energystar.gov/products/water_heater_infographic







ELECTRIC AND HEAT PUMP CLOTHES DRYERS

The average American family washes about 300 loads of laundry each year, making an electric or heat pump clothes dryer a smart option for your home and the climate.¹ Electric dryers are energy efficient, saves a homeowner more money over time, are easy to install, and **last up to 20 years**. Compact dryers are only made as electric options. Electric dryers are ventless, meaning they can be placed anywhere because they don't require easy access to outdoor ventilation.

Why you should install

- Healthier homes with reduced greenhouse gas emissions²
- Potential to power with renewable energy
- Improved impact on clothing appearance due to lower drying temperatures²



To find MiEnergy Rebates, visit: **MiEnergy.coop**

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¹energystar.gov/products/clothes_washers

² energystar.gov/products/heat_pump_dryer







INDUCTION STOVES/RANGES

Induction ranges send electromagnetic currents directly into the bottom of pots and pans—heating your food fast, but not the surrounding stovetop or the air. This releases fewer pollutants into a home's air, uses less energy, and allows food to reach higher temperatures faster than a gas or other electric range. Gas stoves have significant documentation to show their release of nitrogen dioxide, carbon monoxide and formaldehyde when ignited.¹

Induction ranges **heat one quart of water in 101 seconds** as opposed to the gas heating or electric stove time of 8 or 10 minutes¹. Induction stoves tend to be pricier than their cooking cousins, but might save you money in the long run by using about **10% less energy than standard electric stoves**.¹

Why you should install

- · Home comfort year-round
- Save on air conditioning
- Faster cooking times (and more time with family)
- No gas hookup needed
- Electricity has potential to be powered by renewable energy



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¹Rocky Mountain Institute Study 2020, rmi.org/insight/gas-stoves-pollution-health



